

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

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JUDGMENT ACCOMPANIED BY OPINION
2011 FEB 28 P 2:30

RICHARD W. WIEKING
CLERK, U.S. COURT OF APPEALS
OPINION FILED AND JUDGMENT ENTERED: 02/24/11
N.D. CA. SAN JOSE

The attached opinion announcing the judgment of the court in your case was filed and judgment was entered on the date indicated above. The mandate will be issued in due course.

Information is also provided about petitions for rehearing and petitions for rehearing en banc. The questions and answers are those frequently asked and answered by the Clerk's Office.

Costs are taxed against the Appellee(s) under Rule 39. The party entitled to costs is provided a bill of costs form and an instruction sheet with this notice.

The parties are encouraged to stipulate to the costs. A bill of costs will be presumed correct in the absence of a timely filed objection.

Costs are payable to the party awarded costs. If costs are awarded to the government, they should be paid to the Treasurer of the United States. Where costs are awarded against the government, payment should be made to the person(s) designated under the governing statutes, the court's orders, and the parties' written settlement agreements. In cases between private parties, payment should be made to counsel for the party awarded costs or, if the party is not represented by counsel, to the party pro se. Payment of costs should not be sent to the court. Costs should be paid promptly.

If the court also imposed monetary sanctions, they are payable to the opposing party unless the court's opinion provides otherwise. Sanctions should be paid in the same way as costs.

Regarding exhibits and visual aids: Your attention is directed to FRAP 34(g) which states that the clerk may destroy or dispose of the exhibits if counsel does not reclaim them within a reasonable time after the clerk gives notice to remove them. (The clerk deems a reasonable time to be 15 days from the date the final mandate is issued.

JAN HORBALY
Clerk

cc: Matthew M. Wolf
Bruce R. Genderson

HOLOGIC V SENORX, 2010-1235
DCT - ND/CA, 08-CV-0133

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United States Court of Appeals
for the Federal Circuit

HOLOGIC, INC., CYTYC CORPORATION,
AND HOLOGIC L.P.,
Plaintiffs-Appellants,

v.

SENORX, INC.,
Defendant-Appellee.

2010-1235

Appeal from the United States District Court for the
Northern District of California in Case No. 08-CV-0133,
Senior Judge Ronald M. Whyte.

Decided: February 24, 2011

MATTHEW M. WOLF, Howrey, LLP, of Washington, DC,
argued for the plaintiffs-appellants. With him on the
brief was JOHN E. NILSSON.

KANNON K. SHANMUGAM, Williams & Connolly, LLP,
of Washington, DC, argued for the defendant-appellee.
With him on the brief were BRUCE R. GENDERSON, AARON
P. MAURER and ADAM D. HARBER.

patent and its parent patents, and is used in the accused device, as discussed further below.

The '142 patent is a continuation-in-part of U.S. Patent 6,413,204 (the "204 patent"), which is in turn a continuation-in-part of U.S. Patent 5,913,813 (the "813 patent").¹ Those patents explain that benefits of balloon brachytherapy include the ability to avoid exposing tissue immediately surrounding a radiation source from overly intense radiation and the delivery of more uniform radiation, both of which are achieved by virtue of spacing the source away from the target tissue, within the balloon. '813 patent col.3 ll.14-38. The '142 patent discloses a balloon brachytherapy device with a "means for providing predetermined asymmetric isodose profile [sic.] within the target tissue." '142 patent col.2 ll.62-64. Various embodiments are described for obtaining this result, including placing an inner balloon filled with a liquid radiation source within the larger balloon, *id.* col.3 ll.1-6, arranging various solid radiation sources within the balloon, *id.* col.3 ll.7-19, and the use of radiation shielding material within the balloon, *id.* col.3 ll.20-36. Isodose curves are shown in figures depicting the radiation devices; these curves illustrate the points at which a given amount of radiation is received. Figure 1 of the '142 patent is illustrative of a relevant embodiment of the claimed invention, showing a tube (12) proceeding along a longitudinal axis (38) through a balloon (32), and radiation sources (36) placed along a curved wire (34), also within the balloon, that create asymmetric isodose curves (*e.g.*, 40). *Id.* col.4 ll.27-59.

¹ All three patents were asserted in the district court. However, Hologic did not appeal the jury's finding that claim 4 of the '204 patent was invalid and did not assert the '813 patent at trial. Thus, they are not before us on appeal.

a radiation source replaceably disposable within the expandable outer surface, the radiation source comprising a plurality of solid radiation sources arranged to provide predetermined asymmetric isodose curves within the target tissue, the plurality of radiation sources being provided on at least two elongate members extending into the apparatus volume, *at least one of the elongate members being shaped to provide asymmetric placement of a radiation source with respect to a longitudinal axis through the apparatus volume.*

Id. col.9 l.45–col.10 l.9 (emphasis added). Claim 8, which depends from claim 1, reads:

The apparatus of claim 1, wherein the expandable outer surface is sufficiently rigid to deform the target tissue into the shape of the expandable outer surface, causing the *predetermined asymmetric isodose curves* to penetrate into the target tissue to a prescribed depth.

Id. col.10 ll.13-17 (emphasis added).

Prior art in the field is also relevant to the appeal. A 1990 article described the use of endotracheal tubes to deliver radiation following the removal of brain tumors. R.D. Ashpole *et al.*, *A New Technique of Brachytherapy for Malignant Gliomas with Caesium-137: A New Method for Utilizing a Remote Afterloading System*, 2 Clinical Oncology 333, 333-37 (1990) (“Ashpole”). Ashpole describes a method of delivering radiation to cancer cells remaining in surrounding tissue after tumor removal. Ashpole at 334. The Ashpole device is described as having a balloon at one end of a catheter which allows for a “source train” of radioactive beads to be introduced into the balloon. The article explains that “[a] certain measure of dosimetrical versatility is possible in that positions of the active

II.

Hologic brought suit against SenoRx, Inc. ("SenoRx") in January 2008, alleging that SenoRx's balloon brachytherapy device, the Contura Multi-Lumen Balloon ("Contura") infringes its patents. SenoRx conceded infringement of claims 1 and 8 of the '142 patent, *see Summary Judgment Op.* at 28, but argued that the asserted claims were invalid. The court held a hearing and issued its claim construction order in February 2009. *Hologic, Inc. v. SenoRx, Inc.*, 2009 WL 416571 (N.D. Cal. 2009) ("*Markman Op.*"). The court construed the language in claim 1, "the radiation source further being asymmetrically located and arranged within the expandable surface to provide predetermined asymmetric isodose curves with respect to the apparatus volume," to require that the radiation source be "located and arranged inside the expandable surface so as not to be concentric with the expandable outer surface," and did not limit the claimed asymmetry to asymmetry about the longitudinal axis. *Id.* at *17. The court similarly construed "predetermined asymmetric isodose curves" in both claims to mean "isodose curves determined before radiation is administered which are not substantially the same shape as the apparatus volume and/or not concentric with the apparatus volume." *Id.* The court thus rejected Hologic's proposed claim construction of "predetermined isodose curves that are not symmetric with respect to the longitudinal axis of the apparatus volume." In rejecting Hologic's construction, the court stated that "although the specification and claims frequently refer to asymmetry with respect to the longitudinal axis, they do not always do so." *Id.* at *11. The court also found persuasive the fact that claim 6 of the '142 patent includes a requirement that the asymmetry be longitudinal, in contrast to the asserted claims, which do not contain that term. *Id.*

in the claim, in accordance with use in the prosecution history, and it results in coverage of the embodiments disclosed." *Id.* at *4.

Based on its constructions, the district court then granted summary judgment of invalidity of claim 1 of the '142 patent, as anticipated by the prior art Ashpole article. *Summary Judgment Op.* In so doing, the court found that Ashpole disclosed predetermined, asymmetric isodose curves like those in claim 1 of the '142 patent. *Id.* at 13-14. However, the court found that Ashpole did not clearly and convincingly disclose claim 8's requirement that the expandable outer surface be sufficiently rigid to deform the target tissue into the shape of the expandable outer surface, and therefore denied summary judgment as to anticipation of that claim. *Id.* at 14. At trial, Hologic asserted dependent claim 8 of the '142 patent. The court instructed the jury that the "asymmetrically located and arranged" limitation and the "predetermined asymmetric isodose curve" limitation of claim 1 had been found in the prior art. J.A. 6561-62. The jury then found that the Ashpole reference alone rendered claim 8 anticipated, and Williams, *inter alia*, rendered claim 8 obvious in light of Ashpole and the court entered judgment in favor of SenoRx. *Hologic, Inc. v. SenoRx, Inc.*, 08-CV-0133 (N.D. Cal. Feb. 24, 2010).

Hologic appealed. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

DISCUSSION

We review a district court's decision on summary judgment *de novo*, reapplying the same standard applied by the district court. *Iovate Health Scis., Inc. v. Bio-Engineered Supplements & Nutrition, Inc.*, 586 F.3d 1376, 1380 (Fed. Cir. 2009). Summary judgment is appropriate "if the movant shows that there is no genuine dispute as

respect to a longitudinal axis through the apparatus volume." '142 patent col.10 ll.6-9. Hologic argues that claim differentiation is only proper between an independent claim and those claims that depend from it. Hologic explains that, in contrast to claim 6, claim 1 was not specifically drawn to the embodiments with multiple radiation sources, thus obviating the need to explain that at least one of the lumens was shaped so as to be asymmetric with the longitudinal axis. Hologic responds to SenoRx's suggestion that Hologic's construction was inconsistent with the embodiments shown in figures 3 and 3A by arguing that those figures are also drawn to an embodiment with multiple radiation sources, and thus are not implicated by claim 1. Hologic further argues that the isodose curves produced by those configurations are asymmetric about the longitudinal axis.

SenoRx argues that the claim language is clear that the contemplated asymmetry is with respect to the balloon's volume and that there is no reason to import limitations from the specification. SenoRx further argues that an asymmetric dose is one that is not substantially uniform in substantially every direction, and that it follows from this construction that the patent discloses radiation sources offset from the center of the balloon. In any case, argues SenoRx, the specification supports the district court's construction by giving an example that does not specify an axis with respect to which the radiation source is asymmetrically placed, both in the text, which describes an example without using the phrase "longitudinal axis," '142 patent col.3 ll.8-10, and in figures 3 and 3A. Those figures, according to SenoRx, show placement of radiation sources that form asymmetric isodose curves with respect to the apparatus volume, as described in claim 1, but are not asymmetrically located with respect to the longitudinal axis. In addition, SenoRx argues that the district

1576, 1582 (Fed. Cir. 1996) (“[I]n interpreting an asserted claim, the court should look first to the intrinsic evidence of record, *i.e.*, the patent itself, including the claims, the specification and, if in evidence, the prosecution history.”). Here, claim 1 does not specify a reference for the asymmetry of the radiation source’s placement within the expandable surface; however, the specification makes clear what the inventors contemplated as their invention. All the descriptions of the invention contemplating the placement of a radiation source describe displacement from the longitudinal axis of the balloon. For example, the summary of the invention describes the configurations contemplated by the inventors:

In one configuration, asymmetric isodose curves are created . . . by . . . locating the radiation source so as to be asymmetrically placed *with respect to a longitudinal axis of the apparatus*. In one example . . . an inner volume containing a liquid radioisotope is asymmetrically placed within the apparatus volume *so as to result in an isodose profile in the target tissue that is asymmetric about the longitudinal axis of the apparatus*.

’142 patent col.2 l.65-col.3 l.6 (emphases added).

This description explains how the radiation source may be asymmetrically placed in relation to the longitudinal axis of the device, and how such placement will create isodose curves that are also asymmetric with respect to the longitudinal axis. One particular sentence was relied upon by the district court because it does not specify asymmetry about the longitudinal axis—in fact, it does not specify any reference in describing its asymmetry. *Id.* col.3 ll.7-10 (“In another example, the radiation source comprises a plurality of spaced apart solid radioactive particles disposed within the apparatus volume and

or other concerns result in a desire to limit the dosage on one or more sides of the device"); *id.* col.7 ll.5-7 ("The inner surface 106 is asymmetrically shaped or located with respect to the longitudinal axis 110 of the device 100").

The district court also looked to other claims to determine the meaning of the disputed terms. *Markman Op.* 2009 WL 416571, at *11. We have explained that other claims "can also be valuable sources of enlightenment as to the meaning of a claim term." *Phillips*, 415 F.3d at 1314 (citing *Vitronics*, 90 F.3d at 1582). Hologic wrongly asserts that looking to other terms is only appropriate when the comparison is between an independent claim and the claims that depend from it. Although that may be an instance where examination of other claims is worthwhile, *Phillips*, 415 F.3d at 1314-15, it is not the only one.

Here, claim 6 specifically refers to a "plurality of radiation sources being provided on at least two elongate members extending into the apparatus volume, at least one of the elongate members being shaped to provide asymmetric placement of a radiation source with respect to a longitudinal axis through the apparatus volume." '142 patent col.10 ll.3-9. Thus, the claim is specific in requiring at least one of the elongate members to be asymmetric about the longitudinal axis. As Hologic notes, however, claim 6 is drawn to a "plurality of radiation sources," and allows for some of those sources to be on the longitudinal axis, while some are displaced by the changed shape of at least one of the "elongate members" or lumens. *Id.* This contrasts with claim 1, which claims merely "a radiation source," does not mention "elongate members," and therefore may require less specificity in explaining shape and location of sources with respect to each other. As we have explained, "[d]ifferent terms or

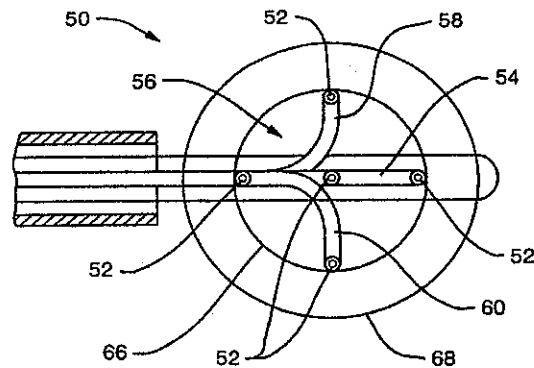


FIG. 3

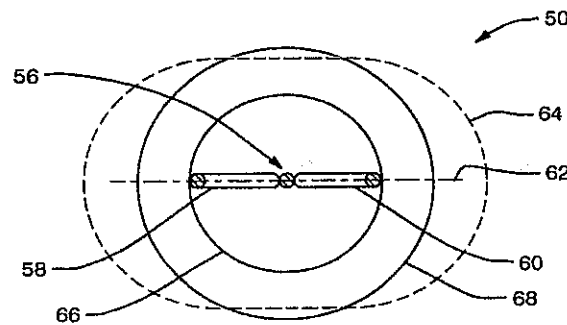


FIG. 3A

As explained by the district court, however, the resulting isodose curve (64) is not symmetric about the longitudinal axis as posited by SenoRx. (Nor, for that matter, are the radiation sources (52); rather, they are symmetric about a plane defined by the longitudinal axis and an axis along the dotted line (62) in figure 3A). *Markman Op.* 2009 WL 416571 at *11. Because the specification, including the figures, consistently and exclusively shows radiation sources located asymmetrically about the longitudinal axis, and because that is clearly what the inventors of the '142 patent conceived of, claim 1 is properly construed as referencing radiation sources that are lo-

prosecution history, and it results in coverage of the embodiments disclosed." *Id.* at *4.

Because the jury's finding of invalidity of claim 8 was predicated on the erroneous claim construction of claim 1, that judgment also cannot stand.

CONCLUSION

For the foregoing reasons, we reverse the district court's grant of summary judgment of invalidity of claim 1 of the '142 patent, and the district court's judgment of invalidity of claim 8 of the '142 patent and remand for further proceedings consistent with this judgment.

REVERSED and REMANDED

COSTS

Costs to Hologic.

United States Court of Appeals for the Federal Circuit

HOLOGIC, INC., CYTYC CORPORATION,
AND HOLOGIC L.P.,
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v.

SENORX, INC.,
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2010-1235

Appeal from the United States District Court for the
Northern District of California in Case No. 08-CV-0133,
Senior Judge Ronald M. Whyte.

FRIEDMAN, *Circuit Judge, dubitante:*

There is no suggestion, or even hint, in the technical language of claim 1 of the '142 patent that its phrase "asymmetrically located and arranged within the expandable surface" means, as the court holds, "located and arranged so as not to be on the longitudinal axis of the expandable surface." The court accomplished this construction of the patent language primarily by incorporating into that language the "longitudinal axis" limitation that is stated several times in the specification.

If that were all this case involved, I probably would join the opinion.